Measuremen of Reactive Nitrogen in the Troposj ere.

B Sen, G B Osterman, G C Toon, R J Salawitch, J -F Blavier, J J Margitan, D B Peterson H M Pickett, R A Stachnik (Jet Propulsion Laboratory, MS 183-301, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, CA 91109; 818-354-1165; e-mail: sen@mark4sun.jpl.nasa.gov)

G K Yue (NASA Langley Research Center, MS 475, Hampton, VA 23681)

High resolut ion infrared spectra made in September 1993 at 35° N with the JPL MkIV interferometer have been used to determine the volume mixing ratio of nitrogen oxide gases (NO, NO_2, HNO_3, HNO_4, N_2O_5, and $ClNO_3$) in the troposphere and lower stratosphere (5 - 20 km). We present estimates of the N oxidation ratio, HNO_3/NO_x, as well as profiles for HNO_4, which constrains our understanding of nitrogen and hydrogen radicals. Measured concentrations of reactive nitrogen gases wil be compared to theoretical values computed using a photochemical model constrained by simultaneous MkIV observations of O_3, NO_y, H_2O, CH_4, Cl_y, CO, C_2H_6, and aerosol surface area from SAGE II.

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3 (a) B Sen,
Jet Propulsion Laboratory,
M. S. 183-301,
California Inst. of Tech.,
4800 Oak Grove Drive,
Pasadena, CA 91109-8099
(b) Tel: (818)354-1165
(b) Fax: (818)354-5148

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5 (a) A02
- Tropospheric CO, NO_y & O_3
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- Troposphere
- composition and chemistry

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